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# **Notice of Allowability**

**Application No.**

09/671,201

**Examiner**

Lan Vinh

**Applicant(s)**

SANO, MICHIAKI

**Art Unit**

1765

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicants remarks, filed on 11/7/2003.
  2. ☐ The allowed claim(s) is/are 41-51 and 60-73.
  3. ☒ The drawings filed on 28 September 2000 are accepted by the Examiner.
  4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☒ All b) ☐ Some\* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☒ Certified copies of the priority documents have been received in Application No. 09/671,201.
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
    - (a) ☐ The translation of the foreign language provisional application has been received.
  6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

- 1 ☐ Notice of References Cited (PTO-892)
- 2 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3 ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. \_\_\_\_\_
- 4 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5 ☐ Notice of Informal Patent Application (PTO-152)
- 6 ☐ Interview Summary (PTO-413), Paper No. \_\_\_\_\_
- 7 ☐ Examiner's Amendment/Comment
- 8 ☒ Examiner's Statement of Reasons for Allowance
- 9 ☐ Other

Lan Vinh  
AU 1765

***Allowable Subject Matter***

1. Claims 41-51, 60-73 allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 41, 46, the applicants have presented persuasive argument that the cited prior art of record fails to disclose a plasma processing method comprises the step of switching the high-frequency power for biasing applied to the workpiece from the first power level to a second power level lower than the first power level before the photoresist film becomes completely removed. In the contrary, the closest cited prior art of Ou-Yang (US 6,379,574) discloses a plasma processing method comprises the step of switching the high-frequency power for biasing applied to the workpiece from the first power level (0 W) to a second power level (150-300 W) that is higher than the first power level (col 7, lines 15-17, col 8, lines 10-20; fig. 5). Regarding claims 49, 60, 66, the applicants have presented persuasive argument that the cited prior art of record fails to disclose a plasma processing method comprises the step of after the ashing step, stopping application of the high-frequency power for biasing before the photoresist film becomes completely removed, while utilizing the same type of processing gas both before and after stopping application of the high-frequency power/ after removing the photoresist film halfway, stopping application of the biasing power with the photoresist film remaining. The closest cited prior art of Ou-Yang ( US 6,379,574 ) discloses a plasma processing method comprises the step of after the resist removing step/ashing step, performing a cleaning step when no bias power is applied/stopping application of the high-frequency power for biasing after the photoresist film is already completely

removed, while utilizing the different types of processing gas both before and after stopping application of the high-frequency power (col 8, lines 34-65). Regarding claim 63, the applicants have presented persuasive argument that the cited prior art of record fails to disclose a plasma processing method comprises the step of after etching a film by utilizing a resist film as a mask, removing the resist film substantially halfway with biasing power. The closest cited prior art of Tohda (US 6,046,114) merely shows an immediate state during the ashing process to remove the resist mask 7 after etching the film 5 by utilizing the resist mask 7 as a mask (col 5, lines 28-32, fig. 1(g)). The reason for allowance of claim 71 has been stated in the previous office action (paper no. 15)

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Vinh whose telephone number is 571 272 1471.

The examiner can normally be reached on M-F 8:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571 272 1465. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.



LV

January 6, 2004